

What is claimed is:

1. A semiconductor device, comprising:

a semiconductor substrate having formed thereon a semiconductor element;

a first wiring layer formed on said semiconductor substrate at above an operating region where said semiconductor element is formed, said first wiring layer being electrically connected to said operating region;

a second wiring layer formed on said semiconductor substrate at above said first wiring layer; and

a bonding pad to be electrically connected to an external connection terminal, formed on said semiconductor substrate at above said second wiring layer, at least a part of said bonding pad being located right above said operating region,

wherein said second wiring layer includes a plurality of wirings formed in the region right under said bonding pad, a predetermined wiring of said plurality of wirings is connected to said bonding pad, and an insulating film is formed between other wirings than the predetermined wiring among said plurality of wirings, and the bonding pad;

said other wirings provided parallel to the edges of said bonding pad are not formed in regions right under

the edges; and

said insulating film is made up of an inorganic insulating film only.

2. The semiconductor device as set forth in claim 1, wherein:

said other wirings are not formed in expanded regions right under said expanded regions as expanded with a stress in a process of electrically connecting said bonding pad to an external connection terminal, said other wirings being provided parallel to the edges to be moved in an expanding direction of said expanded regions of said bonding pad.

3. The semiconductor device as set forth in claim 2, wherein:

respective lengths of the expanded regions in the expanding direction of said bonding pad are set to fall in a range of from 2 μm to 3 μm .

4. The semiconductor device as set forth in claim 2, wherein:

said bonding pad and said external connection terminal are electrically connected by the chip-on-glass.

5. The semiconductor device as set forth in claim 2, wherein:

said bonding pad and said external connection terminal are electrically connected by the chip-on-board.

6. The semiconductor device as set forth in claim 1, wherein:

said bonding pad is to be electrically connected to said inner lead by an inner lead bonding process, and

said other wirings formed parallel to the edges of a region to be electrically connected to an inner lead on a surface of said bonding pad are not formed in regions right under the edges.

7. A semiconductor device, comprising:

a semiconductor substrate having formed thereon a semiconductor element;

a first wiring layer formed on said semiconductor substrate at above an operating region where said semiconductor element is formed, said first wiring layer being electrically connected to said operating region;

a second wiring layer formed on said semiconductor substrate at above said first wiring layer; and

a bonding pad to be electrically connected to an inner lead by an inner lead bonding process, formed on

said semiconductor substrate at above said second wiring layer, at least a part of said bonding pad being located right above said operating region,

wherein said second wiring layer includes a plurality of wirings formed in the region right under said bonding pad, a predetermined wiring of said plurality of wirings is connected to said bonding pad, and an insulating film is formed between other wirings than the predetermined wiring among said plurality of wirings, and the bonding pad;

said other wirings provided parallel to edges of said bonding pad are not formed in regions right under the edges of the regions electrically connected to the inner lead on the surface of said bonding pad; and

said insulating film is made up of an inorganic insulating film only.

8. The semiconductor device as set forth in claim 6, wherein:

said other wirings are not formed in expanded regions right under said expanded regions as expanded with a stress in the inner lead bonding process, said other wirings being provided parallel to the edges to be moved in an expanding direction of said expanded regions of said bonding pad.

9. The semiconductor device as set forth in claim 8, wherein:

the respective lengths of the expanded regions in the expanding direction of said bonding pad fall in a range of from 2 μm to 3 μm .

10. The semiconductor device as set forth in claim 1, wherein:

said insulating film is made up of a silicone oxide film and a silicone nitride film, formed by the CDV.

11. A semiconductor device, comprising:

a semiconductor substrate having formed thereon a semiconductor element;

a first wiring layer formed on said semiconductor substrate at above an operating region where said semiconductor element is formed, said first wiring layer being electrically connected to said operating region;

a second wiring layer formed on said semiconductor substrate at above said first wiring layer; and

a bonding pad to be electrically connected to an external connection terminal, formed on said semiconductor substrate at above said second wiring layer, at least a part of said bonding pad being located right above said operating region,

wherein said second wiring layer includes a plurality of wirings, a predetermined wiring of said plurality of wirings is connected to said bonding pad, and an insulating film is formed between other wirings than the predetermined wiring among said plurality of wirings, and said bonding pad;

said other wirings are formed so as to avoid regions right under the edges in the lengthwise direction of said bonding pad to 3 μm outside the regions; and

said insulating film includes an inorganic insulating film.

12. The semiconductor device as set forth in claim 11, wherein:

said insulating film is made up of an inorganic insulating film only.

13. The semiconductor device as set forth in claim 11, wherein:

at least a part of said other wirings is formed in a region right under said bonding pad, and other wirings formed in the region right under the bonding pad are formed only in a region right under a region electrically connected to an inner lead on a surface of said bonding pad.